Agency	Project	FY2005-06	FY2006-07
Department of Education	Distance Learning—Infrastructure, Programming, and Training	$10,000,000	$10,000,000

SUMMARY OF REQUEST (Executive Summary from the Proposal)

The Distance Learning—Infrastructure, Programming and Training Project intends to capitalize on the three strategic initiatives of the NITC in order to improve the access, content and training opportunities of distance learning to address the essential education expectations for all Nebraska schools. These initiatives include:

- Network Nebraska. The primary objective of Network Nebraska is to develop a broadband, scalable telecommunications infrastructure that optimizes the quality of service to every public entity in the State of Nebraska. Potential benefits of Network Nebraska include lower network costs, greater efficiency, interoperability of systems providing video courses and conferencing, increased collaboration among educational entities, and better use of public investments. Specific technologies required: Network routers that can ensure differentiated qualities of service for various data applications.

- Statewide Synchronous Video Network. This initiative will establish an Internet Protocol-based, high bandwidth network that will interconnect all existing and future distance learning and videoconferencing facilities in the state. Benefits include greater sharing of educational courses and resources; more efficient use of available resources; and one-to-many videoconferencing capabilities for alerts and emergency situations. Specific technologies required: School site routers, Aggregation point routers, School site Codecs (Coder-Decoders), School LAN upgrades, Distance learning scheduling/management system.

- Nebraska eLearning Initiative. This initiative will promote the effective and efficient integration of technology into the instructional process and will utilize server-based course management software to deliver enhanced educational opportunities through web-based instruction. A standards-based eKnowledge repository will provide students and teachers equitable access to rich instructional resources. Specific technologies required: Primary and Secondary course management software servers, Digital content library, School site content servers, eKnowledge repository server.

FUNDING SUMMARY

Network Nebraska

Account Description	FY 06 Adj Req	FY 07 Adj Req	Ongoing
Backbone Transport Costs (preK-12)	$ 500,000	$ 1,000,000	$ 1,500,000
Subtotal	**$ 500,000**	**$ 1,000,000**	**$ 1,500,000**

Statewide Synchronous Video Network

Account Description	FY 06 Adj Req	FY 07 Adj Req	Ongoing
School Site Router Hardware	$ 800,000	$ 800,000	$ 0
School Site Router Maintenance	$ 250,000	$ 250,000	$ 250,000
Aggregation Point Router Hardware	$ 1,300,000	$ 0	$ 0
Aggregation Router Maintenance	$ 200,000	$ 200,000	$ 200,000
School Site Codec Hardware	$ 1,500,000	$ 1,500,000	$ 0
School site Codec Maintenance	$ 200,000	$ 200,000	$ 200,000
Ancillary Equipment/LAN upgrades	$ 1,200,000	$ 1,700,000	$ 500,000
Scheduling/Management system	$ 745,000	$ 725,000	$ 350,000
Training and Support	$ 200,000	$ 200,000	$ 200,000
Subtotal	**$ 6,395,000**	**$ 5,575,000**	**$ 1,700,000**

eLearning Initiative and Knowledge Repository

Account Description	FY 06 Adj Req	FY 07 Adj Req	Ongoing
Course Mgt Software Licensing	$ 60,000	$ 100,000	$ 160,000
Primary, Secondary Server/Licensing	$ 175,000	$ 330,000	$ 295,000
Discovery Digital content library	$ 125,000	$ 250,000	$ 250,000
Site-based content servers	$ 1,650,000	$ 1,650,000	$ 0
Content server installation	$ 300,000	$ 300,000	$ 0
Training and Support	$ 245,000	$ 245,000	$ 245,000
eKnowledge Repository	$ 300,000	$ 300,000	$ 300,000
Acute content shortage resources	$ 250,000	$ 250,000	$ 250,000
Subtotal	**$ 3,105,000**	**$ 3,425,000**	**$ 1,500,000**

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	**Mean**	Maximum Possible
III: Goals, Objectives, and Projected Outcomes	12	14	14	13.3	15
IV: Project Justification / Business Case	25	20	25	23.3	25
V: Technical Impact	16	20	18	18.0	20
IV: Preliminary Plan for Implementation	6	8	9	7.7	10
VII: Risk Assessment	6	8	10	8.0	10
VIII: Financial Analysis and Budget	10	15	19	14.7	20
			TOTAL	**85**	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
III: Goals, Objectives, and Projected Outcomes	- The narrative provides a good overview of the scope and intent of the project. - Strong tie to the objectives of the Ed Council - Outcomes and beneficiaries very well defined. Outcomes are clearly in line with current NITC direction of Network Nebraska in terms of traffic aggregation, collaboration and open standards support.	- The narrative does not include any indication of how the content will be provided. The infrastructure must be put in place to deliver content, however, the content must be readily available and it is not clear how this content will be developed. - Statewide scheduling system is not a given and may not be needed; proposal seems very "centralized" compared to a more robust, regionalized, redundant which would be more a efficient transport bandwidth. - While measurement and assessment methods do appear to be a bit weak they are simply a construct of methods from other projects which are well defined. While this is nominally a weakness it is not a functional problem.
IV: Project Justification / Business Case	- The narrative provides solid fiscal and technical justification for moving forward with this proposal. - The potential benefits to the project are truly phenomenal. In addition to the well stated benefits of the project there is a significant but more esoteric benefit to be gleaned. This project would play a significant role in bridging the digital divide not only from and education perspective but also in a secondary way from an economic development perspective. The presence of high bandwidth IP services in local telco/cable COs will facilitate availability of those services to business, local government and private customers as well as K12.	- Overlooks the value of the current installed infrastructure when only states $20M; tendency to oversell benefits--may not be lower network costs; expand on opportunities there will be; minimizes tech support/role of ESUs; QoS of "carts"--don't oversell
V: Technical	- The narrative provides information on how the	- The narrative does not adequately provide an

Section	Strengths	Weaknesses
Impact	proposed technology offers a better technical fit for K12 schools along with an indication of the greater cost-effectiveness of this solution. - Better use of current bandwidth; in line with current state standards/recommendations - Distance learning specifications are well defined for a document at this level	indication of how "server farms" will be used and the content they will house. Most importantly, ongoing costs of these server farms are not mentioned nor is there any indication of inducements for teachers to provide content. - Network design vague; providers may determine design and price based on $$ available; centralized vs. distributed design a concern (related to eLearning initiative). - E-Learning implementation guidelines are not well defined. While a general plan is in place no standards are specified to guarantee interoperability or upgrade protection.
VI: Preliminary Plan for Implementation	- The narrative addresses the minimum technical information with some mention of the content that will be delivered. - For a document at this level of development this is fine - though obviously there is a tremendous amount of detail work and problem solving that is glossed over.	- The narrative does not adequately address incentives for content development or how this will be funded. - overly optimistic about moving remaining schools not using statewide backbone--July 1, 2005 not possible.
VII: Risk Assessment	- The narrative provides some overview of likely barriers to adoption as the local level. - There are very few risks to this approach from a technology point of view. In fact - this approach moves from a very high-risk implementation (the current non standardized aging implementation) to a standardized lower risk model. The assessment that risk will be in terms of end user buy-in is very accurate and seems to be appropriately anticipated and addressed.	- The narrative does not adequately factor in the likely resistance of those urban districts that may not see the value of distance learning within their district. - overlooks power of local control attitude of local regional DL coordinators; big political battle looms.
VIII: Financial Analysis and Budget	- The narrative provides an accurate overview of how the proposed monies will be spent. - Seems to be reasonable assuming skilled and progressive project management. Good project management and implementation team leadership will be an absolute key to both functionality and staying under budget. This cannot be done in a business as usual fashion but must be designed up as a scalable open standards based future proofed solution - which is not a model that K12 has consistently adopted in the past.	- The notion of achieving postalization of Internet rates in this fashion puts the State in a position of funding schools differentially. Further, unless the plan is tied to consolidation practices the full economic benefit cannot be realized. Finally, no incentive is provided to urban districts that might be interested in producing content if there were financial incentives. - without knowing actual network design, costs of network questionable; schedule system dollars need not established.

TECHNICAL PANEL AND COUNCIL COMMENTS